



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,705	12/29/2005	Klaus Behringer	32860-000969/US	3728

30596 7590 12/02/2008
HARNESSE, DICKEY & PIERCE, P.L.C.
P.O.BOX 8910
RESTON, VA 20195

EXAMINER

BAHTA, KIDEST

ART UNIT	PAPER NUMBER
----------	--------------

2123

MAIL DATE	DELIVERY MODE
-----------	---------------

12/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/562,705	BEHRINGER, KLAUS	
	Examiner	Art Unit	
	KIDEST BAHTA	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 16-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-13 and 16-21 are pending.

Claims 14-15 cancelled

Response to Arguments

2. Applicant's arguments filed 8/28/08 have been fully considered but they are not persuasive.

Regarding claims 1 and 21, applicant argues that the combination of Jerome and Thomas fail to disclose the limitations of claims 1 and 21. However, Examiner disagrees since the combination of Jerome and Thomas discloses all the limitation of claims 1-13 and 16-21.

The indicated allowability of claims 8-9 and 19 are withdrawn because of newly 35 U.S.C. 101 rejection and the rejection under 35 U.S.C. 103, Jerome in view of Thomas.

Jerome discloses **inputs** ("input units 8", column 4, lines 61- 68) **outputs** ("output units 9", column 5, lines 4- 16), **a memory unit** for storing set values (column 2, lines 50-53, "memories 1, 2", which contain "instructions" and "grid signals" A "set value" corresponds to an "instruction" and its corresponding "grid"), and an **allocation unit** as defined in claim 1 of the application ("comparator 10", "comparison indicator 16", "gate 7, 14", column 3, lines 37- 48; column 4, lines 33-55; and column 5, lines 4- 15. See also the example in column 5, lines 31- 47), in which control device at least one of the set values can be set in the memory unit with an independence state value (D)

Art Unit: 2123

(value "0" in the "grid memory 2", column 4, lines 32-61) ; and a digital output value can be allocated to one of the digital outputs by means of the allocation unit, independently of the at least one real input value whose associated set value has the independence state value (D) (column 4, lines 32- 61); the set values having one of the state values 1, 0 or "independence state value" (column 4, lines 32-61). In addition, Thomas discloses an **allocation** (column 6, lines 24-46).

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the control device, memory, input/output and allocator device must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Art Unit: 2123

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The Federal Circuit has recently applied the practical application test in determining whether the claimed subject matter is statutory under 35 U.S.C. § 101. The practical application test requires that a "useful, concrete, and tangible result" be accomplished. An "abstract idea" when practically applied is eligible for a patent. As a consequence, an invention, which is eligible for patenting under 35 U.S.C. § 101, is in the "useful arts" when it is a machine, manufacture, process or composition of matter, which produces a concrete, tangible, and useful result. The test for practical application is thus to determine whether the claimed invention produces a "useful, concrete and tangible result".

Claims 1 and 21, given the broadest reasonable interpretation these are being interpreted software per se. Since the Drawing and the specification is not show how the function is done in the control device. The memory storing the values, which is tangible; however, the claims does not show practical application.

Claims 8, a method for controlling equipment; however, the body of the claim or the claim subject matter does not disclose produce a tangible result. These claims subject matter lacks a practical application since it fails to produce a useful, concrete and tangible result. This produced result remains in the abstract and thus, fails to achieve the required status of having a real world value. It is confused, if the claimed subject matter is software/program code or hardware. Not clear.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jerome et al. (US 4,510,602) in view of Thomas et al. (US 5,623,680).

Regarding claims 1, 8 and 21, Jerome discloses input means for respectively receiving an input real value (column 4, lines 61-68); output means for respectively outputting a digital output value; memory means for storing setpoint values relating to the inputs and outputs (column 5, lines 4-16); and allocation means for allocating a digital output value to one of the digital outputs as a function of a comparison of at least one of the input real values with a corresponding setpoint value, the setpoint values respectively including one of the state values 1, 0 and independence state value

Art Unit: 2123

(column 4, lines 31-61), applicable to at least one of the setpoint values in the memory means (column 2, lines 50-53; column 6, lines 37-48; column 5, lines 31-47).

Jerome fails to disclose the allocation of a digital output value to one of the digital outputs being capable of being carried out by the allocation means independently of the at least one input real value whose allocated setpoint value includes the independence state value.

Thomas discloses the allocation of a digital output value to one of the digital outputs being capable of being carried out by the allocation means independently of the at least one input real value whose allocated setpoint value includes the independence state value (column 6, lines 24-46; column 3, lines 1-3, column 4, lines 45-50; Fig. 6).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teachings of Jerome and Thomas since a plurality of peripheral decentralized units are provided for arithmetic operations, comparisons, and counting operations without interfering with or delaying the execution of a principal program stored in the memories.

Regarding claims 2, 3 and 16-17, Thomas discloses a plurality of sets of setpoint values are respectively being storable for an output value or set of output values in the memory and a plurality of sets of setpoint values are respectively being storable for an output value or set of output values in the memory (column 3, lines 54-column 4, line 11).

Regarding claims 4 and 5, Jerome discloses a plurality of set of setpoint values are respectively being storable for an output value or set of output values in the memory (column5, lines 28-58).

Regarding claims 10, 19-20, Jerome discloses a plurality of sets of setpoint values are respectively provided for an output value or set of output values (column 4, lines 32-61).

Regarding claims 6-7, and 12-13,18, Thomas discloses the safety instrument switches to the safety state if the input real values deviate from the corresponding setpoint values for more than a predetermined time; the sets of setpoint values are checked with a check sum at fixed time intervals (column 7, lines 32-35; column 6, lines 24-46).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed Kidest Bahta whose telephone number is 571-272-3737. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application information Retrieval IPAIRI system. Status information for published applications may be obtained from either Private PMR or Public PAIR. Status

Art Unit: 2123

information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAG system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kidest Bahta/

Primary Examiner, Art Unit 2123